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IN BRIEF

TRANSPLANTATION

Timing of MSC infusion affects immune tolerance

The timing of mesenchymal stromal cell (MSC) infusion has an effect on their immunomodulatory and inflammatory properties, say researchers. Casiraghi and colleagues demonstrated, using a sensitized mouse model of kidney transplantation, that infusion of syngeneic MSCs before transplantation resulted in the expansion of donor-specific T-regulatory cells into lymphoid organs, prolonged allograft survival and promoted the development of tolerance. By contrast, post-transplantation infusion of MSCs led to premature graft dysfunction.

Original article Casiraghi, F. *et al.* Localization of mesenchymal stromal cells dictates their immune or proinflammatory effects in kidney transplantation. *Am. J. Transplant.* doi:10.1111/j.1600-6143.2012.04115.x

DIALYSIS

Ratio of total-to-ionized calcium and mortality risk

A prospective, observational study has found that the ratio of total-to-ionized calcium independently predicts mortality in critically ill patients with acute kidney injury receiving continuous renal replacement therapy with regional citrate anticoagulation. The researchers found that a ratio of total-to-ionized calcium ≥ 2.4 was associated with a 33.5-fold increase in 28-day mortality. A significant correlation was also found between total-to-ionized calcium ratio, hepatic clearance and severity of critical illness.

Original article Link, A. *et al.* Total to ionized calcium ratio predicts mortality in continuous renal replacement therapy with citrate anticoagulation in critically ill patients. *Crit. Care* doi:10.1186/cc11363

BASIC RESEARCH

Renoprotection by IL-2/IL-2 antibody complexes

Administration of IL-2 complexed to a specific IL-2 monoclonal antibody, JES6-1, is renoprotective in a mouse model of focal segmental glomerulosclerosis, according to new findings. Polhill *et al.* found that administration of the IL-2/IL-2 antibody complex to mice with adriamycin-induced nephropathy induced the expansion of T-regulatory cells and resulted in improved renal function, reduced inflammation, and reduced histologic injury. They suggest that administration of IL-2/IL-2 antibody complexes could expand T-regulatory cells and treat renal disease in humans.

Original article Polhill, T. *et al.* IL-2/IL-2Ab complexes induce regulatory T cell expansion and protect against proteinuric CKD. *J. Am. Soc. Nephrol.* doi:10.1681/ASN.2011111130

DIALYSIS

Gastrointestinal symptoms in patients on peritoneal dialysis

A new cross-sectional study reports that a greater number of patients on peritoneal dialysis are affected by gastrointestinal symptoms compared with those on hemodialysis. Salamon and colleagues found that 85% of patients on peritoneal dialysis had at least one gastrointestinal symptom compared with 51% of patients on hemodialysis. More peritoneal dialysis patients also had reduced food intake and reported that they had attempted dietary changes to alleviate symptoms.

Original article Salamon, K. *et al.* Peritoneal dialysis patients have higher prevalence of gastrointestinal symptoms than hemodialysis patients. *J. Ren. Nutr.* doi:10.1053/j.jrn.2012.02.007